

## Replacement Instructions

# hp StorageWorks MSA1500 cs SCSI I/O Module

*These instructions apply to the MSA1500 cs product family. The part may also be used in other HP products. Please refer to documentation for your specific product for detailed replacement instructions.*



If the product in which this part is being replaced is still under HP warranty, then the replacement part(s) referred to in these Replacement Instructions is provided under the terms and conditions of the Hewlett-Packard Company Limited Warranty for that product. A copy of this Limited Warranty may be viewed at:

<http://h18006.www1.hp.com/products/storageworks/warranty.html>

If this is a trade sale part (product out of warranty), then the replacement part(s) referred to in these Replacement Instructions is provided under HP's express limited warranty statement, which may be viewed at:

[http://customerops.corp.hp.com/1sw/pdm\\_om/warranty\\_support/policies/2330100.doc](http://customerops.corp.hp.com/1sw/pdm_om/warranty_support/policies/2330100.doc)

The replacement part takes on either the Limited Warranty Period of the part being replaced or a ninety-day period that begins upon installation of the replacement part, whichever is greater.

The information contained on these replacement instructions is subject to change without notice. The only warranty for this replacement product is as noted above. Nothing in these replacement instructions should be construed as constituting an additional warranty. The information provided in these replacement instructions is provided "AS IS" and HP is not liable for technical or editorial errors or omissions contained herein.

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MSA1500 cs SCSI I/O Module Replacement Instructions

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361700-001

## About this document

This document details the procedures for replacing a failed MSA1500 cs SCSI I/O module in HP StorageWorks Modular Smart Array (MSA) storage systems.

## Verifying component failure

Before replacing the SCSI I/O module, use the following methods to verify the component failure.

- Check the controller LCD for one of the error messages listed in Table 1.

Table 1: LCD Error Messages

No.	Message
23	SCSI SUBSYSTEM HARDWARE FAILURE
412	STORAGE BOX #<n> EMU NOT RESPONDING

- The status LED on the rear of the module is not illuminated or is flashing amber ❶.

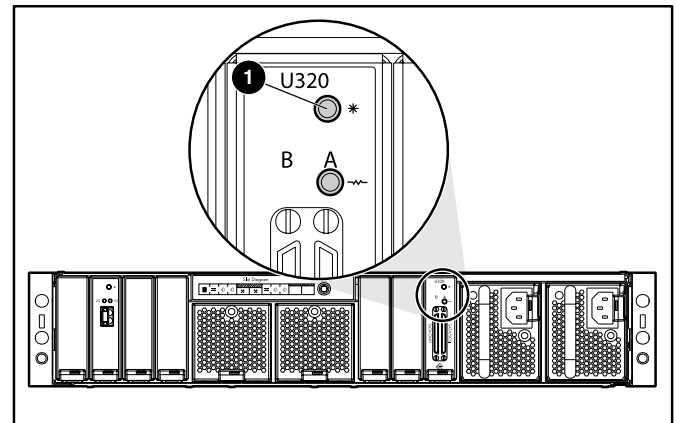


Figure 1: Status LED

## Before you begin

Read the following cautions and information before beginning removal and replacement procedures.



**Caution:** Be sure the replacement part is available before removing the failed component. Removing a component impacts cooling within the enclosure.



**Caution:** Parts can be damaged by electrostatic discharge. Use proper anti-static protection. Refer to the documentation that shipped with your system for additional information.



**Caution:** It is important to follow these instructions when replacing components in the MSA. If the procedure is done improperly, it is possible to lose data or damage equipment.



**Caution:** Before replacing this hot-pluggable component ensure that steps have been taken to prevent loss of data.

## Step 1: Removing the module

**Note:** Before removing the SCSI I/O module, label all cables. This ensures their reconnection in the correct configuration.

1. Disconnect all SCSI cables from the SCSI I/O module.
2. Lift the port-colored SCSI I/O module latch ❶ and pull the SCSI I/O module out of the enclosure ❷.

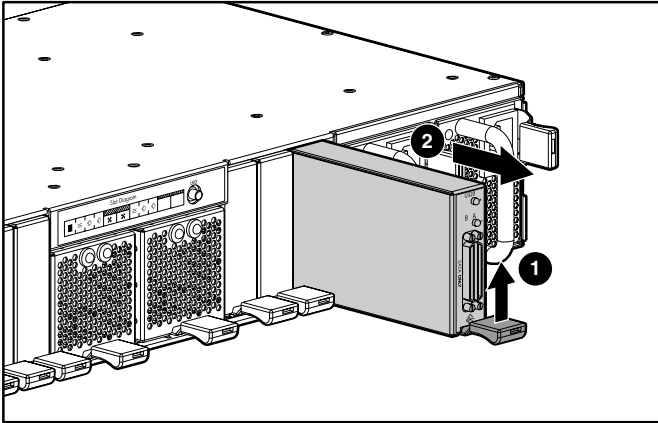


Figure 2: Removing the SCSI I/O module

## Step 2: Installing the module

To install a SCSI I/O module:

1. Slide the SCSI I/O module into the bay until it clicks into place.

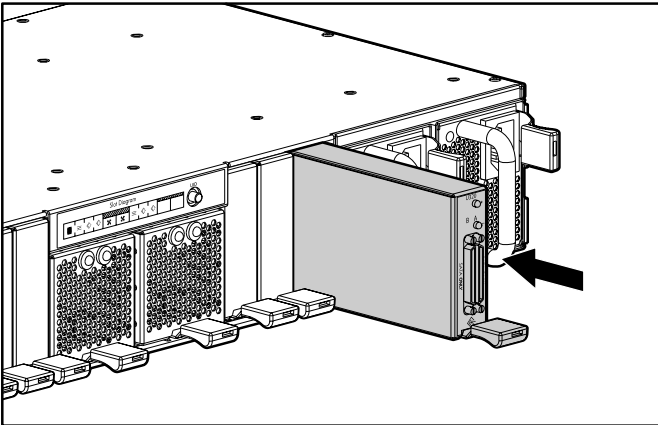


Figure 3: Installing the SCSI I/O module

2. Reconnect all SCSI cables.

**Note:** Make sure that all of the SCSI connectors are fastened tightly.

## Verifying the replacement

After replacing the failed SCSI I/O module, verify that:

- No error messages are displayed on the controller LCD.
  - The status LED is solid green.
- Returning the failed component.

## Returning the failed component

Please follow the return instructions provided in the replacement component package.

## Additional information

For additional information, refer to the MSA technical documents web site at <http://www.hp.com/go/msa1500cs>.